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ABSTRACT

Findings are reported of a survey to determine researchable problems or implications for trade and industrial education as they might be stimulated by "The Final Report of The Vocational Education Study, Publication No. 8," directed by Henry David in 1981 for the National Institute of Education. Research questions and implications provided by respondents are listed according to the six sections of the instrument. The sections and frequency of responses are distribution of funds (25), programs and services for special needs students (22), overcoming sex bias and sex stereotyping (21), planning improvement (21), extending and improving programs (16), and strengthening evaluations (17). (The population was comprised of these groups: policy and planning and research committee members of the American Vocational Association's Trade and Industrial Education Division, state and territorial supervisors of trade and industrial education, and individuals listed in the Trade and Industrial Education Research Directory.) The survey instrument is appended. (YLB)

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ED236406

A Report On

RESEARCHABLE PROBLEMS AND IMPLICATIONS FOR T & I EDUCATION DRAWN FROM THE VOCATIONAL EDUCATION STUDY

Prepared by

Chester P. Wichowski*

A Survey Activity
of the
American Vocational Association
Trade and Industrial Education Research
Committee

December, 1983

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

The following report is the result of a nationwide survey conducted by the American Vocational Association Trade and Industrial Education Research Committee. The topic of this investigation was identified by the Policy and Planning Committee of the Trade and Industrial Education Division of the American Vocational Association during its December 5, 1982 meeting in St. Louis, Missouri. The procedural design and instrumentation used in this research effort was developed through discussion among members of the Trade and Industrial Education Research Committee.

The Population

The population used in this investigation was comprised of the following groups:

1. The Policy and Planning Committee of the American Vocational Association's Trade and Industrial Education Division (N=11),

2. The Research Committee of the American Vocational Association's Trade and Industrial Education Division (N=20),

3. State supervisors of trade and industrial education in the United States and territorial supervisors in the U.S. Virgin Islands and Puerto Rico (N=52), and

4. Individuals listed in the Trade and Industrial Education Research Directory (N=50).

The policy and planning and research committee members were identified through membership listings supplied by their respective chairpersons. The state and territorial supervisors were identified through a national directory prepared by Vocational Industrial Clubs of America Inc., Leesburg, Virginia, while the listing

of individuals in the Trade and Industrial Education Research Directory were supplied by the Trade and Industrial Education Research Committee of the AVA.

All members of the population (N=133) were sent a transmittal letter, a copy of the survey instrument, and a postage paid return address envelope. Copies of the instrument and transmittal letter are included in Appendix A. Twenty-eight percent of the population (N=37) responded to the survey. No follow-up mailing was conducted.

The Research Instrument

An open ended 4 page questionnaire was specifically designed to collect data in this survey. Respondents were directed to provide comments in the form of researchable problems or implications based on their review of statements listed in the six sections of the instrument.

The purpose of this survey was to determine researchable problems or implications for T & I education as they might be stimulated by "The Final Report of The Vocational Education Study, Publication No. 8", directed by Henry David for the National Institute of Education in 1981. The survey instrument was therefore developed directly from the Vocational Education Study Final Report. The statements in items A-F of the instrument were taken verbatim from the findings and conclusions of the report.

A copy of the survey instrument and the transmittal letter are included in the Appendix.

Findings

The findings of this survey have been reported according to the six sections of the instrument as they were provided by the respondents. It should be noted that the research questions and implications listed have been edited when necessary to provide a uniform level of style in several instances. Care was exercised to preserve the original intent of each response as it was provided.

Table 1 shows the relative frequency and percentage of responses provided in each of the six sections of the survey instrument.

Table 1

Frequency of Responses by Categories

Category	N	%
A. Distribution of Funds	25	24%
B. Programs and Services for Special Needs Students	22	21%
C. Overcoming Sex Bias and Sex Stereotyping	21	20%
D. Planning Improvement	21	20%
E. Extending and Improving Programs	16	15%
F. Strengthening Evaluations	17	16%
Total	105	100%

SECTION A: DISTRIBUTION OF FUNDS

What is the pattern for spending funds for T & I education within the states and how does it differ from funds spent in other areas of Vocational Education?

To what extent do T & I educators agree with the way federal funds are spent in their state? What changes would they recommend?

What funds are needed to implement viable training programs for different occupational areas?

What is the relationship between allocated training funds and training programs financial needs?

Make states take responsibility for their own T & I needs.

What is the relative cost of training students in the various program areas at the secondary level; at the post-secondary level?

A study of the relationship between the total dollars spent on a program or project and the measurable impact of the program or project. Is there an optional level of funding for measured effectiveness?

What are the local cost sharing trends of secondary vocational education in the seven regions of the U.S.?

Compare use of funds state by state in program areas, use by category, and by sub-part areas. Review all information by the number of students served in each state by program area.

Are T & I programs receiving a fair share of vocational funds at federal and state levels?

How effective are state advisory councils?

National goals are often not compatible with state or regional goals; strict adherence limits potential.

The use of Office of Education discretionary funds to encourage special and demonstrative programs through national proposals for trade and industry on a regional basis.

What explicitly are federal priorities--social change or occupational training in a given area? These are not necessarily mutually exclusive--but it may be difficult to be effective in achieving both.

Investigate and document the necessity for using high cost equipment, facilities in T & I. Tie a "realism" or simulation factor to high quality voc ed instruction by way of student/employer satisfaction ratings and/or placement results, as compared with non-vocationally trained job incumbents.

Develop a need factor in the state distribution formula that includes industry and skilled labor migration as well as the state's ability to use funds effectively for expanding and improving local programs. Part of the formula could be identifying and redefining staff needs--local and state agencies in terms of updating existing staff for new roles and developing new specs/quals for new hires.

Each state should have funded a comparative analysis/study to determine where federal and state policies for voc ed are congruent or disparate.

Survey to determine the methods or formulas for allocating differential amounts of funding for several subject matter areas.

Block grants within educational regions of a state.

Such a small percentage of the total spent on programs is federal, yet federal regulations drive the direction of approved programs.

What factors would best be used as a base in determining the distribution of funds?

Identification/survey of educational/industrial leaders to determine acceptable criteria for the distribution of funds.

An examination of the factors driving the interstate distribution of federal funds to determine which are the most mutually reinforcing.

Isolate ambiguous procedures and analyze. Determine what makes them clear or faulty as they relate to distribution.

Rank order the 50 states based on funding and examine in relation to labor market outcomes and vocational school effectiveness outcomes.

SECTION B: PROGRAMS AND SERVICES FOR SPECIAL NEEDS STUDENTS

To what extent is T & I education serving special needs students?

In what ways do federal funding requirements inhibit T & I education from serving special needs students?

To what extent are regular T & I programs watered down for students with special needs; do employers hire these graduates?

What are the characteristics of the T & I disadvantaged student population; the handicapped student population?

What is the status of mainstreaming students in T & I programs?

Special needs students are "mainstreamed" based on funding. What happened to their needs? Just because funding is provided doesn't mean their needs are met.

To what degree are special needs populations being provided vocational education at the secondary level; at the post-secondary level?

What are the inhibitors and facilitating conditions that have resulted in effective programs for special needs students?

A comparison of formulae used in determining excess costs within selected states with high enrollments of special needs students.

Identify teacher competencies best for special needs students in T & I programs. Develop a listing of resources available to address each competency.

How many students are mainstreamed in T & I programs and what is the extent of their training?

How many special needs students are refused program entry?

How are set aside funds used by states?

Identify competencies needed by T & I teachers to teach special needs students; develop strategies for program delivery.

Enrollment of black minority students in vocational education has not grown regardless of special emphasis.

How to improve guidelines to determine how to factor excess cost and matching funds for special needs students.

Develop a survey instrument to determine what special support will be required for special needs individuals, such as; special hardware or software in T & I programs.

Wasn't the purpose of the '63 Amendments to fund the excess cost of vocational education above general or academic education? How do you fund the excess cost of excess cost? Historical research on excess cost in vocational education would be interesting.

Survey instructors to determine if mainstreaming is being done: (a) with voc ed personnel input to each student's individualized education plan (required under PL 94-142) and (b) with continuous monitoring of student's voc ed program progress by the local committee on the handicapped (also required) (c) determine where and to what extend excessive numbers of handicapped are mainstreamed into specific voc ed courses.

What has been the increase of females in T & I programs?

What percent or level of federal funds should be expended on the operation of instructional programs in relation t the amount spent on non operational parts of programs or special categories

Identification of districts that have utilized federal funds in a concentrated fashion, a less than concentrated fashion, or not at all to mainstream special needs students and examine in relation to labor market outcomes and vocational school effectiveness outcomes.

SECTION C: OVERCOMING SEX BIAS AND STEROTYPING

To what extent has sex stereotyping of course selection been reduced in the T & I program areas?

In what ways has the sex equity coordinator been involved in reducing sex stereotyping in T & I program areas?

What value has been derived from desexing T & I programs?

What has been done to improve the male/female rates in traditionally male T & I programs?

What is the effectiveness of efforts to improve the male/female rates in traditionally male T & I programs?

What has been the role of sex equity coordinators in T & I program philosophy and implementation?

What proportion of federal, state, and/or local funds have been used on sex equity related activities in T & I programs?

Recruit more women into T & I education, and pay them well enough to stay. Also, quit trying to mandate sex ratios--provide T & I courses which parallel community skills training needs, and let anyone of any sex enroll. Women aren't ignorant enough to sign up for a worthless course.

Using a criterion of employment in non-traditional roles, what is the nature of those programs that are most and least successful?

Grants made in sex equity; a contrast of the 1960's, 1970's and 1980's.

Compare the degree of sex stereotyping prior to legislation and at points in time every two years after legislation.

How can we recruit and retain minorities in T & I programs?

Career development must be articulated with program content. Therefore, I.A., T & I and Tech. Ed. programs must work closer instead of isolating their activities, curriculum and program planning.

No value in terms of progress in sex equity coordinator has been demonstrated. This figurehead position is a waste of money.

A review of outstanding T & I programs used to overcome sex bias and sex stereotyping in various states, that could be used as role models in other states.

A survey of students to determine their reactions to non-traditional educations and perceived barriers to seeking this kind of training.

T & I education is not as bias as the employment market.

Conduct rate-of-change studies comparing local, regional or state non-traditional hiring practice changes in the private sector to changes in numbers of non-traditional students in T & I programs.

Where should sex equity begin? at home? kindergarten, H.S. or vocational school? What should it emphasize--skills or attitudes?

An examination of perceived or actual role duties in relation to mandated functions for sex equity coordinators.

Identification of funds expended by state and examined in relation to program effectiveness.

SECTION D: PLANNING IMPROVEMENT

What changes are necessary in the state plan to make it more useful to T & I Educators for planning and delivering programs?

What is the impact of state planning on the quality of local programs? (Difficult to research but important) Study the qualitative and quantitative aspects of local participantion in vocational education planning.

Movement into high technology subjects by AVTS; what, when and curriculum?

Are resources dispensed in T & I programs as planned?

What kinds of occupational data is obtained from T & I programs?

Are plans listed for T & I programs carried out?

What T & I program decisions are made as a result of state plans?

What effect does planning at the state level have on decision making for T & I programs at the local level?

Local agencies can't afford to maintain traditional T & I programs and implement new T & I programs which address local needs or new technology. It's strictly a marketplace decision. One of them has to be ignored or go out of business.

Conduct a comparative study between program operation and compliance documents for vocational programs at the secondary level; the post-secondary level.

To what degree do state planning committees represent political efforts to retain current programs of limited justification contrasted with development of new programs to meet new needs?

Review composition of state committees/many may be appointed without a real knowledge of vocational education.

Occupational demand data is incorrect, does not match real world job titles, is too general to be used and is achieving negative results when used. Functional utility is not present.

New guidelines for incorporating local level priorities with regional priorities, to develop statewide plans.

Additional guides for planning groups that will include input and representatives of local teachers.

Can LEA's afford federal incentives when federal funding is gone or looses its buying power or when no increases are appropriated during periods of double digit inflation?

At what level does decision making and control of vocational programs take place?

Student placement and retention for any extended period of time on the job is seldom looked at to any degree.

An examination of the extent to which SOICC's outcomes are being achieved. An examination of the extent to which SOICC related information/materials are being utilized by local planners.

An examination of the extent to which NOICC's outcomes are being achieved. An examination of the extent to which NOICC related information/materials are being utilized by local planners.

SECTION E: EXTENDING AND IMPROVING PROGRAMS

What are the primary needs in T & I program areas for program improvement and new programs?

What kind of planning data would be most useful to T & I educators for program planning and improvement purposes?

What proportion of voc ed funds at the local level go for T & I program improvement?

What processes are used at local levels to identify improvement needs for T & I education programs?

What is the relationship of T & I program improvement needs and available funds?

What new and emerging programs have been implemented in T & I education?

What are the effects of required program improvements in local programs at the secondary and post-secondary levels?

To what degree does categorical funding correspond with public ratings of program priorities, numbers of people affected and projected employment opportunities.

A comparison of shifts of funds from on-going to new and improved programs in majority of states.

Develop a better term or definition for new and emerging occupations.

Explore the process used by states where funds are used to extend and improve programs.

Many people in vocational education work for administrators with backgrounds in home economics or agriculture. You are free to develop any kind of new approach you wish as long as it does not conflict with the traditional philosophies of these two program areas. Placement is a dirty word and we have failed with those students who do not go on to college in some non-vocational higher education pursuit. Their whole frame of reference is "kids". Post-secondary is given little support.

A survey of states that utilizes federal funds for program improvements in the T & I areas.

A review of the impact of program improvement in T & I areas should be considered in order to make a comparison of the value of additional funding for program improvements.

Survey to determine local and state program administrators positions on stricter enforcing of funding/spending rules. Include possibility of allocation penalty in following year for not following rules.

A state-by-state examination of vocational school effectiveness in relation to funds expended for professional personnel development.

To what extent is federal money being utilized to maintain rather than extend, improve, or initiate vocational training programs.
Determine why program improvement funds haven't been given to applicants in accordance with agreed-upon procedures.

SECTION F: STRENGTHENING EVALUATIONS

Survey existing state program evaluation instruments for assessing local T & I programs; develop and field-test new improved instruments.

How are programs evaluated; is industry involved; are craft advisory committees really involved in evaluating T & I programs?

What measurable criteria would be most useful to evaluate T & I programs?

What evaluation approaches are most likely to be useful to T & I educators?

What is an acceptable method or model for improving programs.

What is the relationships between employer judgements on training, student placement in programs and needs to improve programs?

Evaluate the ways programs are planned and operated.

What are appropriate criteria to judge program effectiveness?

Which evaluation criteria serve as predictors of cost-benefit, long-range employability economic stability and continued up-grading?

Study the mobility of T & I students and "college prep" students in forms of the mean distance from the school after 1, 3 and 5 years. It would be nice if we determined that T & I graduates were more likely to stay in the community.

Determine the length of employment after graduation and the number of jobs held through graduate follow-up employer post-program evaluations.

Develop and implement a national model for evaluating student placement and employer judgements. Wisconsin has a good working model in use for secondary school data.

No decision in vocational education in my state has ever been based on placement or lack of it. The greatest researchable item I can think of would be the re-definition of vocational education and trade and industrial education. The former is now indistinguishable from general education and the latter from industrial arts. Pabulum is being purveyed!

Developing minimum competency for students on a national basis in the T & I subject areas.

Methods of disseminating information concerning highly successful evaluated T & I programs to other educators interested in planning an improvement of T & I training.

Conduct a survey to determine the acceptability of requiring balanced evaluation reports. For example: product/process both formative and summative.

Determine the correlation between vocational program planning techniques and their effectiveness for improving curricula.

An effort should be undertaken to determine more practical/realistic evaluative criteria. Both labor market outcomes and education related outcomes should be considered.

APPENDIX A

New Jersey
VOCATIONAL
EDUCATION
RESOURCE
CENTER

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

200 Old Matawan Road, Old Bridge, New Jersey 08857 • 201 - 390-1

October 19, 1983

Dear Colleague:

The American Vocational Association Trade and Industrial Education Research Committee is conducting a survey to determine researchable problems or implications for T&I education as they might be stimulated by "The Final Report of The Vocational Education Study, Publication No. 8", directed by Henry David for the National Institute of Education in 1981.

The attached survey instrument has been developed directly from the Vocational Education Study Final Report. The statements in items A-F of the instrument have been taken verbatim from the findings and conclusions of the report. List any researchable problems or implications for T&I education in any of the six parts of the instrument that you feel are appropriate. Completion time generally ranges from ten to thirty minutes. If you wish, you may confer with colleagues in the completion of this survey.

Return of this instrument in the addressed envelope within the next two weeks will make it possible for a report of survey findings at the AVA Convention this December.

Your assistance in this request is greatly appreciated.

Sincerely,

Chester P. Wichowski

Chester P. Wichowski
For the Trade and Industrial Education
Research Committee

CPW:ai
Attachment-survey

FUNDED UNDER PUBLIC LAW 94-

RESEARCHABLE PROBLEMS AND IMPLICATIONS FOR T & I EDUCATION
DRAWN FROM THE VOCATIONAL EDUCATION STUDY

DIRECTIONS: Please review each of the statements in the six categories. List researchable problems or implications to T & I education as they relate to the statements in each category. Use additional paper as required.

A. DISTRIBUTION OF FUNDS

1. VEA funds are distributed to States and territories with little regard to differences among them in fiscal capacity and no regard to the relative costs of education.

2. Aspects of the intrastate distribution procedures are ambiguous, lack clarity, and are faulty.

3. The intrastate distribution procedures permit States to allocate Federal funds in line with goals and priorities which may or may not be congruent with those of Federal policy.

4. The many factors driving the intrastate distribution of Federal funds are not always mutually reinforcing.

5. Federal grants, the instrument for assisting States, have been too limited in scale to help the States with the task of realizing all the objectives of Federal policy.

RESEARCHABLE PROBLEMS OR IMPLICATIONS FOR T & I EDUCATION:

B. PROGRAMS AND SERVICES FOR SPECIAL NEEDS STUDENTS

1. The successive Amendments to the Vocational Education Act of

B. PROGRAMS AND SERVICES FOR SPECIAL NEEDS STUDENTS (Cont.)

1963, in combination with civil rights laws and other legislation, have stimulated the States to make a greater effort to serve students with special needs.

2. The manner in which the excess costs and matching requirements are interpreted and implemented may inhibit localities from spending Federal funds to provide programs and services for students with special needs and creates a disincentive to mainstreaming these students in regular classes.

RESEARCHABLE PROBLEMS OR IMPLICATIONS FOR T & I EDUCATION:

C. OVERCOMING SEX BIAS AND SEX STEREOTYPING

1. All States have appointed a sex equity coordinator, but the States show considerable variation in the ways in which the mandated functions of this position are carried out.

2. Few States spend a significatnt proportion of their Federal or State and local funds on sex equity-related activities.

3. Sex stereotyping is still pervasive in vocational education, but is less severe than in the early 1970's.

RESEARCHABLE PROBLEMS OR IMPLICATIONS FOR T & I EDUCATION:

D. PLANNING IMPROVEMENT

1. A state planning body, generally called the State Plan Committee, is a necessary, but not a sufficient, condition for more coordinated and comprehensive planning for the use of all resources.

D. PLANNING IMPROVEMENT (Cont.)

2. Occupational demand data are being produced and displayed in plans, but are of questionable utility for local program decisions.

3. Although State planning has improved, States still prepare plans that are primarily compliance documents and do not reflect the operational planning that many of them in fact do.

4. State plans apparently do not significantly influence local program decisions.

5. Coordination in planning is taking place at the State level, but it has little effect upon program decision making at the local level.

RESEARCHABLE PROBLEMS OR IMPLICATIONS FOR T & I EDUCATION:

E. EXTENDING AND IMPROVING PROGRAMS

1. Only a small proportion of all funds spent at the local level go for program improvement purposes.

2. More than 90 percent of Basic Grant Federal funds are spent on vocational education programs or administration.

3. Less than one-half of all reported Program Improvement and Supported Services funds are spent for program improvement purposes.

4. The requirement to give priority to applicants proposing new programs for new and emerging occupations has not operated as intended.

5. There are incompatibilities between the objectives of program improvement and extension and other objectives of the Vocational Education Act.

E. EXTENDING AND IMPROVING PROGRAMS (Cont.)

6. The provisions for federally funded Consumer and Homemaking Education programs encourage, but do not require, improvement and extension.

RESEARCHABLE PROBLEMS OR IMPLICATIONS FOR T & I EDUCATION:

F. STRENGTHENING EVALUATIONS

1. The 1976 evaluation provisions significantly stimulated evaluation activities on the part of the States and localities.

2. The statutory evaluation requirements using the criteria of student placement and employer judgments on training and preparation for employment are not generally useful for improving programs.

3. The best promise of securing results likely to be useful for improving programs and decision making on program offerings is to evaluate the ways programs are planned and operated.

RESEARCHABLE PROBLEMS OR IMPLICATIONS FOR T & I EDUCATION:

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